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Influence of Prominent Immunomodulatory Cytokinestnf-A308 G>A (Rs1800629) and Tgfβ1 G>C (Rs1800471) Sequence Variations As An Important Contributing Factor InEtiopathogenesis of Recurrent Miscarriages (RM) In Kashmiri Women (North India)

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Background: Different **c**ytokines have been substantiated to play an important role in recurrent pregnancy losses (RPL) and we aimed to evaluate the genetic variation of *TNF-α* 308 G>A (rs1800629) and *TGFβ1* G>C (rs1800471) to confer risk in patients with recurrent miscarriages (RM) in highly consanguineous population of Kashmir (North India).

Methods and Preliminary results: A total of 200 women who experienced 2 or more recurrent miscarriages (along with 100 spouses,60 products of conception and 240 healthy controls) with 2 or more full term pregnancies were recruited from the same geographical region and evaluated by polymerase chain reaction-restriction fragment length polymorphism method .*TNF-α* 308 G>A variant genotype (AA) was significantly associated with recurrent miscarriage cases (2.5% vs. 0.4% controls respectively: $p<0.05$) and it's per copy allele A also presented more in cases (32% vs. 24% in controls; $p<0.05$) that showed a risk of 1.5 fold for cases ($p<0.05$). The difference of variant genotype GA was observed to be significant among recurrent miscarriage cases and Product of Conception: 60.5% vs. 83% respectively ($p<0.05$) wherein variant *TNF-α*GA genotype conferred 3-fold risk ($p<0.05$).On the other hand, *TGF β1* G>C showed no association with recurrent miscarriage cases in our population.

Preliminary Conclusion: The study found both *TNF-α*308 G>A variants are significantly associated with an increased susceptibility for recurrent miscarriages to cause pregnancy losses but on the other hand *TGF β1* does not seem to impact the outcome of pregnancy in our population.